

[Emilio Martínez, a farmer who arrived in the Fuerte River Valley in 1965, and the Huities dam: a new era of fertility and bounty]

Land of opportunity

Odebrecht marks the 15th anniversary of its presence in Mexico, which began with the Los Huities Project

WRITTEN BY **Eliana Simonetti** PHOTOS BY **Luciana De Francesco**

SINALOA, ONE OF THE 32 STATES THAT MAKE UP THE UNITED STATES OF Mexico, is a semi-arid region where temperatures often soar as high as 45°C and rainfall is rare. Until a few years ago, life was hard for local residents. As if the heat and short rainy season were not enough, the Fuerte River, which flows through the state, would flood when it did rain, leaving towns, cities and fields underwater. But those floods are now a thing of the past. There was record rainfall in 2005 but no flooding at all. On the contrary, farmers reported excellent harvests of tomatoes, maize, vegetables and wheat – 80% of which was exported to the United States, Japan and Europe.

Today, Sinaloa is one of Mexico's leading producers of farm products and one of the nation's most important exporting regions. In October, farmers were getting ready to plant next year's crops.

In part, this transformation is the result of a project built by Construtora Norberto Odebrecht, which arrived in Mexico 15 years ago. The contractor's first achievement was the construction of a dam and hydroelectric plant in the Huities region, near the highest point of the Fuerte River. This project prevented flooding and enabled farmers to make the best use of the land by building irrigation channels, in addition to generating electricity and developing activities such as fishing and tourism.

Emilio Martínez Victoria, 48, calls himself a *campesino*, or family farmer. He arrived in El Carrizo, in the Fuerte River valley, in 1965 together with his parents and nine siblings to settle on land distributed by the government through an agrarian reform program. His plot of land is situated in Fuerte Mayo, an area where farmland is run by organiza-



tions similar to Brazilian cooperatives. He is the treasurer of one of these associations, whose membership includes 1,800 families living on 15,070 hectares of land. Their association alone has reported an increase of over 500% in its assets, production and productivity over the last three years.

Working alongside two of his sons, Emilio Martínez harvests 8,000 tonnes of maize per planted hectare. Tomato farmers harvest 40 tonnes per hectare – 10 times the Brazilian average for staked tomatoes, the kind grown in El Carrizo. “If we didn’t have a steady supply of water, people wouldn’t live here. They’d have headed for the

cities and the valley wouldn’t produce anything at all,” says Emilio. Until the 1990s, there was neither electricity nor running water in his home. He recalls that he often had to hunt lizards for food because his family did not earn enough money to put food on the table.

The official name of Los Huites is the Luis Donaldo Colosio Murrieta Dam, in honor of the presidential candidate who was assassinated during the 1994 campaign. This project became an emergency measure when a devastating flood ravaged 60,000 hectares of land, including towns and cities, in early 1991. Antonio Ibarra, 70, and his daughter Elizabeth Ibarra Mendoza, 50, recall that, every two or three years, they had been forced to leave their home in the tiny village of San Miguel Zapotitlan and wait for the water to recede. “We were used to floods but the 1991 flood was very

bad. People were trapped in their homes and couldn’t even open the door because the pressure of the water was so strong. It was a terrible shock. We camped out in the mountains for three days before we could go back and see what was left of our house,” says Antonio, who worked as a cowboy until he retired. “Since the new dam was built, we’ve never had to go through that again,” says his daughter.

THE HUITES REVOLUTION

The riverside communities’ terrible experience made the Mexican government decide to go ahead with a long-standing project. There were already two dams on the Fuerte River, but in 1992 it was determined without a doubt that they could not handle the flood problem on their own, and that a new reservoir would not only improve local residents’ quality of life but add 70,000 hectares of irrigated land and generate 400 MW of electricity. Because of the flooding a long-awaited project was finally carried out. The dam and hydroelectric plant were built between 1992 and 1995, in an operation that broke records in terms of speed, the amount of concrete poured and new technologies employed. The end result was much better than expected.

Huites has brought jobs and prosperity in its wake. “Today there’s no shortage of electric power in this country and there are no areas that can’t be used for farming and ranching in that region. Agribusinesses have also been set up there,” observes the engineer César Ramos Valdés, Sub-Director for Irrigation and Farming Infrastructure at the National Water Commission, an agency of Mexico’s Department of the Environment and Natural Resources.



[Working on the Lázaro Cárdenas del Río Refinery project: a tool for achieving self-sufficient fuel production]

MEXICO IN NUMBERS*

- **Area:** 1.9 million sq.km
- **Population:** 103.1 million
- **Economic growth:** 4.73% per year
- **GDP:** USD 768.4 billion
- **GDP per capita:** USD 7310
- **Direct foreign investments:** USD 18 Bn
- **Inflation:** 3.4% per year
- **Average interest rate:** 7.10% per year
- **Growth of GDP for construction:** 5% per year

* data for 2007 - Source: Mexico's Government / National Statistics / Geography and IT Institute and World Bank / World Development Indicators



BENEFITS FOR THE MEXICAN PEOPLE

LOS HUITES

- Reservoir storage capacity of **4.5 million liters of water**.
- **Irrigating 70,000 ha** of land in the Fuerte River system in addition to the **263,000 ha cultivated** in 2006.
- **29,000 family farms** harvested **30 million tonnes of grain** in 2006, as well as fruits and vegetables.
- Generating **400 MW of power** distributed throughout northwestern Mexico.

Source: Comisión Nacional del Agua

PEMEX REFINERY

- Contributing to Mexico's drive to achieve **self-sufficient gasoline production**. Mexico is the world's fifth-largest producer of crude oil. Due to a lack of refining capacity, it spends nearly USD 40 million per year on gasoline imports.
- Increasing the processing capacity of the General Lázaro Cárdenas oil refinery from 185,000 to **375,000 barrels per day** by 2008.
- **Work opportunities:** over 90% of the 700 people working on these projects are Mexicans.

Source: Pemex, CMO





[César Ramos Valdés: joint pursuit of innovative solutions]

According to Valdés, the irrigated area in Sinaloa State reported a 30-million-tonne grain harvest in 2006 – up 15% compared with the previous year. “Working with Construtora Norberto Odebrecht was a very different experience from contractors we have worked with in the past. Other companies come here with personnel and technology and leave as soon as their work is done. But CNO viewed this as a partnership, found innovative solutions for our problems, worked efficiently (so much so that some of their methods were copied by Chinese companies), transferred technology to our people and stayed in this country,” he observes. “We are committed to Mexico and the Mexican people. We are here to stay, ready to contribute in any way we can to the development of this country’s infrastructure,” says Carlos Armando Guedes Paschoal, CNO’s CEO for Mexico. Odebrecht arrived in this country under his leadership in August 1991, when what was then CBPO of Mexico opened an office there. Carlos Armando left in 1995 to lead Odebrecht’s operations in Argentina and the Southern Cone and resumed his leadership of the team in Mexico in 1998. In 2002 he became CEO for Portugal and in August 2006, once again became the CEO for Mexico, where he has gone back to live in Mexico City.

Los Huites was Construtora Norberto Odebrecht’s first project in Mexican territory. After that came substations and power transmission lines in five northern states; six offshore accommodation platforms with 1,000 beds for Petroleos Mexicanos (Pemex) workers; and, more recently, the expansion and upgrading of the General Lázaro Cárdenas del Río Refinery, also owned by Pemex www.pemex.com. The aim of this

project is to increase the refinery’s capacity in order to make Mexico fuel self-sufficient in the next five years. Although this country exports oil, it currently imports gasoline and diesel. “We are involved in a major and complex project, our first Engineering, Procurement and Construction (EPC) contract in this country with an international price set by Pemex. In this context, the client’s commitment to the progress of this project has been highly positive,” says Roberto de Mesquita Sahlit, an engineer who has been with CNO for 23 years and is the Construction Manager for Embramex.

Embramex is one of the joint ventures formed by CNO to carry out all the tasks involved in the General Lázaro Cárdenas del Río Refinery project in Minatitlán, Veracruz. The other is called Minatrico. CNO’s partners in both joint ventures are Técnicas Reunidas, from Spain, and the Río San Juan Construcciones Group (Grupo R), from Mexico. The project includes integrating six plants into the oldest refinery in the country, built in 1906, to increase its processing capacity from 185,000 to 375,000 barrels per day by 2008. These facilities include a coke plant, an amine regeneration unit, a diesel hydrodesulfurization unit, a naphtha plant and a sulfur recovery plant, among others.

“We are carrying out an extensive program and are very pleased with the performance of the Odebrecht team, who have proven to be experienced, competent and hard-



[Sergio Fuentes: “Mexicans and Brazilians have similar behaviors and working styles”]



[Carlos Armando Paschoal: back in Mexico.
Larger photo – Odebrecht members working on the project: Álvaro Monroy Olascoaga, Ricardo Santos Ribeiro, Cláudio Santos, Fabio Teixeira de Melo, Adriano Bitencourt, Roberto Sahlit, Monique Borges, Paulo Martins and José Gomes]

working. Our relationship is much easier than other foreign companies because Mexicans and Brazilians have similar behaviors and working styles,” says engineer Sergio Fuentes Banda, the Pemex Director in charge of the operation.

This statement is particularly interesting in light of the fact that there are 700 people working at the Minatitlán jobsite, including just 10 Brazilians. What is more, the official leader of the two joint ventures is the Spanish firm. Even so, the hallmark of the Odebrecht Entrepreneurial Technology (TEO) is clearly present. “We are using our leadership ability and taking up the slack,” explains Fabio Pereira Teixeira de Melo, the CNO representative. In Feb-

ruary 2006, he took over a job from the joint venture's lead company: he is now responsible for overall planning of operations at the refinery. Roberto Sahlit and Teixeira de Melo are among the few Brazilians who are certified to manage projects by the Project Management Institute www.pmi.org, the first organization to have its methodology recognized by the American National Standards Institute (Ansi). “This is one of the distinguishing features that make our job easier,” says Teixeira de Melo.

A STABLE, PROSPEROUS ECONOMY

Several indicators demonstrate that Mexico's economy is stable and experiencing a period of prosperity (see box). The government and private enterprise are investing a total of USD 15 billion in projects that will upgrade and expand infrastructure facilities and speed up the pace of growth. After all, Mexico's name originated from a word in the Nahuatl, the language spoken in the Aztec empire before the arrival of the Spanish conquerors in the 15th century. It is believed to mean “house of plenty” or “center of the world.” And CNO has been hard at work in this country for 15 years.

During that period, grooming company members has been one of the cornerstones of the company's operations in Mexico. Álvaro Monroy Olascoaga, 24, is a mechanical engineer who graduated from the Technological Institute of Higher Learning in Mexico City. For the last year, he has worked in the planning and equipment installation areas on the General Lázaro Cárdenas Refinery project. “At Odebrecht, I'm encouraged to learn and take on new responsibilities. I like the company's philosophy and its hiring process and am very happy with the work I'm doing.” **o**